

**REMARKS/ARGUMENTS**

Claims 1-13 are pending in the current application and have been rejected. Claim 10 has been cancelled. Claims 8 and 10 were objected to for informalities that have been corrected. Claims 1-6, 8-9, and 11-13 have been rejected under 35 U.S.C. § 102 as being anticipated by Beaufort (French Patent No. 501,417). Claim 7 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Beaufort in view of Zabriskie (U.S. Patent No. 1,267,157). Additionally, claim 10 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Beaufort in view of Lepine (U.S. Patent No. 3,716,033). All claim rejections are respectfully traversed.

Independent claims 1 and 8 have been rejected under 35 U.S.C. § 102 as being anticipated by Beaufort. Claim 1 has been amended and in part requires "timed ignition elements in communication with the arcuate compression compartment zones." The disclosure to Beaufort does not disclose time ignition elements as is required by the claim. Instead, Beaufort merely ignites and does not have a timed element. (Lines 43-54). Consequently, because Beaufort does not have a timed ignition element, the anticipation rejection cannot stand.

Claim 8 additionally has been amended and in part requires "a pair of oppositely disposed vanes slidably mounted in radially extended slots in each of the rotors... and fuel injections ports adjacent the vanes on the rotor in the compression chamber". Dependent claim 10 has been written into claim 8 adding the limitation of a pair of oppositely disposed vanes slidably mounted in the radially extending slots in each of the rotors. According to the Examiner, "Beaufort fails to disclose each rotor having a pair of oppositely disposed vanes." Consequently, as admitted by the Examiner, Beaufort does not

contain oppositely disposed vanes and the anticipation rejection cannot stand.

The Examiner has rejected claim 10 that has been rewritten into independent claim 8, under 35 U.S.C. § 103(a) as being unpatentable over Beaufort, in view of Lepine. An obviousness analysis begins in the text of section 103 with the phrase "at the time the invention was made." For it is this phrase that guards against entry into the "tempting but forbidden zone of hindsight when analyzing the patentability of claims pursuant to that section. See Loctite Corp. v. Ultraseal Ltd., 781 F.2d 861, 873, 228 USPQ 90, 98 (Fed. Cir. 1985), overruled on other grounds by Nobelpharma AB v. Implant Innovations, Inc., 141 F.3d 1059, 46 USPQ 2d 1097 (Fed. Cir. 1998). Measuring a claimed invention against the standard established requires the often difficult but critical step of casting the mind back to the time of the invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and then-accepted wisdom in the field. See, e.g. W.L. Gore & Assoc., Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 313 (Fed. Cir. 1983). Close adherence to this methodology is especially important in the case of less technologically complex inventions, where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against the teacher." Id.

The best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. See, e.g., C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352, 48 USPQ 2d 1225, 1232 (Fed. Cir. 1998) (describing "teaching or suggestion

or motivation [to combine] as an essential evidentiary component of an obviousness holding") combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability - the essence of hindsight. See, e.g. Interconnect Planning Corp. v Feil, 774 F.2d 1132, 1138, 277 USPQ 543, 547 (Fed. Cir. 1985) ("The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time.") In this case, the Examiner has fallen into the hindsight trap.

Evidence of a suggestion, teaching or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem solved, although the suggestion more often comes from the teachings of the pertinent references. Rouffet, 149 F.3d at 1355. The range of sources available does not diminish the requirement for actual evidence. That showing must be clear and particular. See, e.g., C.R. Bard, 157 F.3d at 1352. Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. e.g., McElmurry v. Arkansas Power & Light Co., 995 F.2d 1576, 1578, 27 USPQ 2d 1129, 1131 (Fed. Cir. 1993) ("Mere denials and conclusory statement, however, are not sufficient to establish a genuine issue of material fact.").

The obviousness rejection asserted by the Examiner is based on a combination of prior art references, e.g., the conventional rotary internal combustion engine of Beaufort combined with the vane structure of Lepine. To justify this combination the Examiner states "it would have been obvious to one having ordinary skill in the art at the time the invention was made, to

have utilized each rotor having a pair of oppositely disposed vanes, as taught by Lepine, since the use thereof would have created operating ignition and compression portions in the Beaufort rotary engine." (Office Action , page 7). Rather than to point to specific information in Lepine that suggests the combination with the conventional rotary combustion engine, the Examiner describes the general functions of the vanes. Nowhere does the Examiner particularly identify any suggestion, teaching, or motivation to combine the prior art references such as the identification of the relevant art, the level of ordinary skill in the art, the nature of the problem to be solved, or any other factual findings that might serve to support a proper obviousness analysis. See, e.g., Promold & Tool, 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996).

To the contrary, the Examiner's decision is based on a discussion of the ways that multiple prior art references can be combined to read on the claimed invention. (Office Action, page 7). Yet this reference by reference, limitation by limitation analysis fails to demonstrate how the Lepine reference teaches or suggests its combination with Beaufort to yield the claimed invention.

Accordingly, because the Examiner has not particularly identified any suggestion, teaching, or motivation to combine the prior art references the Examiner's conclusion of obviousness as a matter of law cannot stand.

Even if there is a suggestion or motivation to combine the prior art references, the apparatus that would result still would not meet the limitations of claim 8. The teachings or suggestions to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicant's disclosure. See In re Vacck, 997 F.2d 488, 20

U.S.P.Q.2d 1438 (Fed. Cir. 1991); MPEP § 2143. To establish a *prima facie* case of obviousness, all the claim limitations must be taught by the prior art. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 57 C.C.P.A. 1029, 1032 (1970).

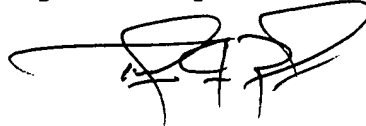
Claim 8 has been amended to require in part "fuel injection ports adjacent the vanes on the rotor in the compression chamber". As stated by the examiner Beaufort fails to disclose each rotor having a pair of oppositely disposed vanes and consequently does not show fuel injection ports adjacent those vanes. (Office Action, page 7). Additionally, Lepine does not show fuel injection ports adjacent the vanes in the rotor in the compression chamber. Instead, Lepine provides "furthermore, the fuel injection type engines, additional openings will have to provide for fuel injectors." (Col. 3, lines 25, 26). Consequently, Lepine suggests the use of fuel injectors, however, does not provide where the location of the fuel injectors would be or how to implement these fuel injection openings. The only way for one skilled in the art to know where to place the fuel injection ports with respect to the vanes, as is required in the claim, would be to use the Applicant's disclosure as a blueprint. Consequently, neither the Beaufort nor the Lepine disclosures provide fuel injection ports adjacent the vanes on the rotor in the compression chamber. As such a *prima facie* case of obviousness is not present.

Accordingly, the proposed combination does not meet the limitations of the claimed subject matter and as a matter of law the Examiner's rejection cannot stand.

CONCLUSION

If any issues remain that may be expeditiously addressed in a telephone interview, the Examiner is encouraged to telephone the undersigned at 515/558-0200. All fees or extensions of time believed to be due in connection with this response are attached hereto; however, consider this a request for any extension inadvertently omitted, and charge any additional fees to Deposit Account 50-2098.

Respectfully submitted,



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